



## Lab 9: Editing files with vi

In this lab you will use the vi editor to create new files and edit existing files.

### Preparation

- Find and skim Lesson 11 slides: <http://simms-teach.com/cis90calendar.php>
- Check the forum for news on this lab: <http://oslab.cis.cabrillo.edu/forum/>
- For additional assistance come to the CIS Lab: <http://webhawks.org/~cislab/>

### Procedure

Log on to Opus so that you have a command line shell at your service. Change directory to *edits* to start this lab.

1. Create a text file called *home* using **vi** and insert the following lines:

```
cd
clear
echo This is the home directory of $LOGNAME
echo =====
ls -F
```
2. Use the **chmod** command to set the permissions on the file, *home* to *rxwxr-xr-x*.
3. Enter the command **home** and see what happens. Is it what you would expect?
4. Move this shell script you have just made to your *bin* directory, so that you may run it from anywhere on the system.  
Congratulations: you have just written your first shell script!

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5. Run the **spell** command on the file *small\_town*:  
**spell small\_town**  
Note all the misspelled words.
6. Make a permanent list of the above misspelled words by running the **spell** command again, but this time, redirect the output to a file called, *words*.
7. Use **vi** to edit the *small\_town* file and:
  - correct all the misspelled words.
  - move the "Reprinted from ..." line to the bottom.
  - get rid of duplicate lines, repeated words and extraneous characters in the file.
  - use a consistent indentation.

- fix the typo on the line: "The biggest business **on** town ..." (change to in)
- fix the typo on the line: "The airport **runaway**..." (change to runway)

TIPS:

- use the **dd** command to delete lines.
  - use **yy** and **p** commands to copy and paste.
  - use **/string** command to search for misspelled words.
  - use **x** command to delete single characters.
  - use **i** command to do normal notepad-like screen editing, and **Esc** to get back to command mode.
  - use two login Putty sessions, one to edit *small\_town*, the other for *words*.
8. When you have fixed all the spelling errors, run the **spell** command again. What should be done with words like "Ayshire", "moshpit" or "mashpit" that aren't in UNIX's dictionary?
  9. Edit the file *words* and remove all the misspelled words that you have corrected. (Only Ayshire and moshpit should remain in the file.)

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10. Enter the following three commands from your shell prompt:

```
date
echo Now is the time for all good men to come to the aid of their party
cal
```

Use command line editing to redisplay the **echo** command, and change the word men to women. Then re-execute the command. Hint: to enter command line editing mode, press the up-arrow key.

11. Re-execute the command once more, but this time redirect the output to a file called *women*. You should now have a file named *women* with a single line in it.

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12. Here is a little project for you to accomplish on a UNIX system:

- I have emailed a message titled, "Winter is coming" to your Opus account. Read your mail and save this message to a file called, *vocab* in your *edits* directory.
- **vi** the *vocab* file and remove the numbers and spacing in front of each definition. Also remove the extraneous mail headers.
- If a line wraps around to two lines then edit it so it all fits on one line.
- Sort this list so that it is in dictionary order and save the results in a temporary file.
- Rename the above temporary file to *vocab*. Now your vocabulary list is in alphabetic order. Make any necessary adjustments to the file, e.g. making sure the title is at the top of the page and that there are no broken sentences.

### Extra Credit (optional)

Make a one-page website on Opus-II (2 points)

1. In your home directory create a directory named *cis90\_html* and in that directory create two more directories named *css* and *images*.
2. Make sure these new directories AND your home directory have read and execute permission for Others.
3. There are three files you will need from the */home/cis90/depot* directory named *index.html*, *base.css* and *pengmovie.gif*.

- a. Copy *index.html* to your *cis90\_html/* directory.
- b. Copy *base.css* to your *css/* directory.
- c. Copy *pengmovie.gif* to your *images/* directory.
4. Edit and personalize the *index.html* file with your name and recommendations.
5. Change the SELinux context of your *cis90\_html/* directory to allow web publishing:  
**chcon -R -t httpd\_sys\_content\_t cis90\_html**
6. Browse to your new website using <http://opus-ii.cis.cabrillo.edu/~username>  
(replace *username* with your *Opus-II* username)
7. Feel free to optionally modify the CSS styling in the *base.css* file.
8. Post the URL for your new website on the forum and invite classmates to check it out.
9. Include your *index.html* file in your lab09 file (see Submittal section below).

## Submittal

To get credit for this lab, you must send me all the files that you have created or edited in this lab.

1. Bundle (concatenate) the files below into a single text file in your home directory named *lab09*:

*home*  
*words*  
*small\_town*  
*women*  
*vocab*  
*index.html* (extra credit)

2. Copy your *lab09* file to the */home/rsimms/turnin/cis90* directory renaming it as *lab09.\$LOGNAME*. This can be done in a single command.

Be sure to verify that your submittal was completed before the deadline. **Remember late work is not accepted.**

## Grading Rubric (30 points total)

- 5 points for correct version of *home*
- 8 points for correct version of *small\_town*
- 2 points for correct version of *words*
- 2 points for correct version of *women*
- 8 points for correct version of *vocab*
- 5 points for correctly submitting *lab09* file

Less 1 point for each step or portion of a step not completed correctly

- 2 points extra credit for making a website
- 2 points extra credit for making your Arya into a webserver (see below)

## Even More Extra Credit (optional)

Make your Arya into a web server for HTML and PHP pages using XAMPP (2 points)

*username* is your username on Opus-II  
*172.20.90.1xx* is your Arya-*xx* IP address (where *xx* is your Arya number)

1. Log in as cis90 on your Arya.
2. Enter the following commands:

```
sudo apt-get update  
sudo apt-get upgrade (take defaults)  
sudo init 6
```

```
wget https://www.apachefriends.org/xampp-files/7.2.11/xampp-linux-x64-7.2.11-0-installer.run  
chmod +x xampp-linux-x64-7.2.11-0-installer.run  
sudo ./xampp-linux-x64-7.2.11-0-installer.run (take defaults)  
sudo /opt/lampp/lampp start
```

```
cd /opt/lampp/htdocs  
sudo scp username@opus-ii:/home/cis90/depot/benji.* .  
sudo scp username@opus-ii:/home/cis90/depot/pumpkins.* .
```

```
sudo mkdir images  
cd images  
sudo scp username@opus-ii:/home/cis90/depot/*.jpg .
```

3. Test by browsing from the Arya belonging to tbd08, tbd09 or tbd10:
  - [http:// 172.20.90.1xx/pumpkins.html](http://172.20.90.1xx/pumpkins.html)
  - [http:// 172.20.90.1xx/pumpkins.php](http://172.20.90.1xx/pumpkins.php)
  - [http:// 172.20.90.1xx/benji.html](http://172.20.90.1xx/benji.html)
  - [http:// 172.20.90.1xx/benji.php](http://172.20.90.1xx/benji.php)
4. Email a screen shot of browsing to one or both of your PHP web pages to risimms@cabrillo.edu. Make sure it shows the URL and dynamic content.

Extra credit is due when the lab is due. **Remember, late work is not accepted.**